

does he thus impart new associations to old ideas, but gives a new characterization of the present age:— "To-day, anti-adrenal, anti-religious ideas are epidemic" (p. 208). One last quotation:—"The pituitary personality in childhood produced by limitation of the size of the gland . . . presents typical hall-marks. He supplies the precocious hoboos, the mental and moral deficientes and defectives, the prey of the sentimental complexes of elderly virgins and helpful futility all around. Not utilitarianism or futilitarianism is needed, but pituitarianism." (p. 214). Perhaps this last sentence will inspire Mr. Squire to another poem.

The omissions are almost as startling as the commissions. It appears that Dr. Berman does not think the nervous system responsible for any important part of our personality, save indirectly through endocrine agency. A study of insect instinct alone would have shown him his error, an error that the psychologists are not likely to allow to stand.

There is not only room, but need, for a book which will sum up our knowledge of the ductless glands, and the bearings of that knowledge, in a way that is both popular and accurate. If Dr. Berman will prepare for his second edition by documenting his statements, by discarding some of his wilder biological speculations (such as Gaskell's theories of vertebrate ancestry, or his ideas about the development of mammals in the Tertiary (p. 102), or about hermaphroditism (p. 186),) by curbing his clinical imagination, and by pruning his style, he will have done us all a very great service.

J. S. HUXLEY.

**Cotton, Henry A., M.D.** Medical Director New Jersey State Hospital, Trenton, U.S.A. *The Defective Delinquent and Insane.* Oxford University Press, 1921. Pp. 201. 12s. 6d. nett.

THE main theme of this book is the causal relationship of sepsis, particularly of the teeth and tonsils, but also of the alimentary and genito-urinary tracts, to mental disorder and delinquency. Short reports are given of 25 patients suffering from various forms of psychosis in whom septic foci were discovered, the removal of which resulted in more or less rapid cure. The following brief extracts from Case I are fairly typical of the whole: A patient was admitted in March 1918, in a very apprehensive state, thinking he was going to be killed and rapidly becoming worse. In May it was noticed that he had four crowned molars, these were extracted and two days following he became normal; he was discharged in June and remained well three years later. Now, no one will deny that persons suffering from a psychosis may have a septic focus, and it is true that in a small proportion of such persons the removal of this focus results in a return to mental equilibrium; but when the author proceeds to make such sweeping statements as "We are to-day in a position to show that the doctrine of heredity as applied to mental disorders is not in harmony with modern biological knowledge and is, therefore, obsolescent," and "we do know that the infections should be considered far more important in the production of mental disease than heredity, mental factors, environmental defects, personality, and improper training, because they can be more

directly controlled,"—we must confess that he seems to us either to have had a very limited experience of insanity or to have lost his sense of perspective. Even Dr. Adolf Meyer, who writes a Foreword, says that he feels the somewhat extreme claims go beyond what he personally feels to be his experience. As every experienced psychiatrist knows, there are many insane persons who have no septic focus, there are many others who, whilst having such, are entirely unaffected by its removal, and there are vast numbers of people suffering from extensive chronic septic and other intoxication who remain perfectly normal mentally. The fact of the matter is that sepsis, and many other conditions which might be mentioned are, with few exceptions, exciting or determining causes only, and experience shows that they are not even that if the nervous system is sound. If it is not sound, that is if there is a predisposition to breakdown, then sepsis may suffice to cause a disturbance of equilibrium, so may many other adverse factors of the environment. This predisposition may be acquired or it may be inherited; it is our experience, and we fancy the experience also of most physicians who have had extensive acquaintance with mental disorder, that inherited predisposition plays by far the most important role in the genesis of this condition, and this book by no means convinces us to the contrary.

A. F. TREDGOLD.

**Rabaud, Etienne.** *L'Hérédité.* Librairie Armand Colin, Paris, 1921.

It goes without saying that the experimental study of Heredity is a subject of the most profound importance for the Eugenist. Any new views and searching tests of old-established hypothesis should, therefore, be received with consideration by those who see in the general study of Heredity a sure foundation for Eugenic practice. The fact is that at present our knowledge of human heredity is neither precise nor complete. It can only become so by a more thorough preliminary investigation of heredity among other forms of life.

Professor Rabaud's summary of our knowledge is, therefore, welcome in so far as in its central theme—an attempt to demolish the factorial hypothesis—it exposes some of the weaknesses of contemporary theories. One, however, wishes that the shrewdness of his destructive criticism and the merciless flagellation of the weak spots in the factorial hypothesis had been accompanied by a clearer exposition of his own alternative system.

Professor Rabaud introduces a new and desirable note in attempting to look at the mechanism of heredity from the physiological standpoint. He points out that the living substance on which all manifestations of heredity are based is an association of which the components exert a reciprocal effect on one another. This is, of course, true and is very often lost sight of by morphologists. But to stress it too far is to negative the very obvious facts of differentiation. Even with the chromosome theory of heredity, those developments of it which are due to Morgan and are treated so peremptorily by Prof. Rabaud cannot wholly be dealt with on a physiological basis. We have certain facts pointing to differentiation of the contents of the chromosomes